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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,311	04/02/2004	Grant Edward Carlson	STL11717	1862

7590

03/20/2006

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EXAMINER

EDWARDS, ANTHONY Q

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/817,311

Applicant(s)

CARLSON ET AL.

Examiner

Anthony Q. Edwards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9,11-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,11-18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Declaration under 37 CFR 1.132, filed December 20, 2005, is insufficient to overcome the rejection of the pending claims, based upon the following 35 USC 102/103 rejection(s).

Claim Objections

Claims 18 and 20 are objected to because of the following informalities: claim 18 includes “; and.” at the end of the sentence. Appropriate correction is required. Claim 20 is dependent on claim 18 and is objected to for at least the same reasons.

Claim Rejections - 35 USC § 102/103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 11 and 14-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 6,906,914 by Stamos. Referring to claim 9, Stamos discloses a shelf (28) comprising an enclosure defining a tubular closed passage with a frontend opening and a backend opening (see Fig. 4A). Stamos also discloses the shelf having a frontend partition (28a) adapted for supporting a first component (34) inserted in the frontend, a removable backend partition (i.e., the lower portion of 46) adapted for supporting a second component (36) inserted in the backend, and a backplane support (i.e., the upper portion of 46) fixed to the backend partition and adapted for operably fixing a backplane (42) thereto to support the backplane while removably connecting the first

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and second components to opposing sides, respectively, of the backplane. See Fig. 3 and col. 4, lines 3-10.

Although the invention is not identically disclosed or described as set forth in section 102 of Title 35 USC, the differences between the subject matter sought to be patented and the prior art are such that the subject as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Stamos teaches an enclosure having a removable backend partition and a backplane support. The reference does not specifically teach the removable backend partition and the backplane support as separate structures, but does teach an upper portion of 46 and the lower portion of 46 “fixed” together. See Fig. 4A, which shows screw holes or weld points on the side of the backend partition and between the upper and lower portion(s) of 46.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the backend partition to include separate upper and lower portions that are fixed or joined together, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Referring to claim 11, Stamos discloses a shelf, wherein the first component comprises a multiple disc array. See Fig. 4A and col. 4, lines 10-16.

Referring to claim 14, Stamos discloses a shelf, wherein the second component comprises a component selected from a group consisting of a data storage device controller (36), a power supply unit, an interface unit, and a battery unit. See col. 3, lines 29-33.

Referring to claim 15, Stamos discloses a shelf, wherein the backend partition (46) is adapted for supporting a fourth component (38) different than the second component. See Fig. 3 and col. 4, lines 10-16.

Referring to claim 16, Stamos discloses a shelf, wherein the fourth component comprises a component selected from a group consisting of a data storage device controller, a power supply unit (38), an interface unit, and a battery unit. See col. 3, lines 29-33.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-8, 12, 13, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamos in view of U.S. Patent Number 6,594,150 by Creason et al. Referring to claim 1 and the corresponding method claim 17, Stamos discloses the device as substantially claimed, including a backend partition (i.e., the lower portion of 46) that is removable from the shelf and is adapted for operably supporting a component (36) inserted in the backend, a backplane (42) supported by backplane support (i.e., the upper portion of 46) that is removable from the shelf, the backplane operably engageable in electrical connection with the component (36) on one side of the backplane. See Figs. 3 and 4A. Stamos does not teach the system having a multiple device array as claimed.

Creason discloses a computer system having front and rear access, including a multiple device array (see Fig. 5) comprising a carrier (200) enclosing a plurality of data storage devices

(212/214) that are electrically connected to a common connector (139), see Fig. 7, wherein the carrier is operably slidably engageable in a frontend partition to toward a backplane (see Figs. 1A and 1B). Creason also discloses the array comprising an alignment member (i.e., pin or post in Fig. 7) extending outwardly for engagement and alignment purposes as claimed by the applicant.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system of Stamos to include the teaching of supplying a multiple device array comprising a carrier and an alignment member, as taught by Creason, since the device of Creason would provide the system of Stamos with an independent carrier or sub-chassis for the multiple data storage devices of Stamos.

Referring to claim 2, Stamos in view of Creason disclose an array storage system, wherein the removable back-end partition (46) comprises the backplane support. See Fig. 4A and col. 4, lines 3-10 of Stamos.

Referring to claims 4 and 5, Stamos in view of Creason disclose an array storage system, wherein the frontend partition is adapted for supporting a second component (406) different from the multiple device array, the second component comprises a component selected from a group consisting of a data storage device controller, a power supply unit, an interface unit, and a battery unit. See Fig. 5 and col. 5, lines 13-16 of Creason.

Referring to claims 6-8, 12 and 13, respectively, Stamos in view of Creason disclose an array storage system, the component (36) comprises a component selected from a group consisting of a data storage device controller (36), a power supply unit, an interface unit, and a battery unit; the backend partition (46) is adapted for supporting a third component (38) different

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than the component (36); and wherein the third component comprises a component selected from a group consisting of a data storage device controller, a power supply unit (38), an interface unit, and a battery unit. See Fig. 3 and col. 4, lines 29-34 of Stamos.

Referring to claim 18, Stamos in view of Creason disclose a method for electrically connecting components, including removing the backend partition partition from the backend opening; removing the backplane; attaching a replacement backplane to the backplane partition; (*and*) replacing the backend partition in the backend opening. See Fig. 3 and col. 4, lines 10-16.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stamos in view of Creason, and further in view of U.S. Patent No. 4, 971,563 to Wells, III. Stamos, as modified, discloses the method for electrically connecting components as substantially claimed (see the above rejection to claim 17 and 18), except for attaching a characteristically different backplane. Wells teaches providing a modular backplane assembly for computers (see Figs. 1-3), wherein one backplane module (Fig. 2) is replaceable with a characteristically different backplane module (see Fig. 3) for use in the same computer system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to electrically connect components in the system of Stamos, as modified, utilizing a modular backplane assembly, wherein a first backplane is replaced by a characteristically different second backplane, as taught by Wells, since the device of Wells facilitates conversion among a plurality of modules and allows for upgrades to the modified system of Stamos in a cost efficient manner.

Response to Arguments

Applicant's arguments with respect to independent claims 1 and 17 have been considered but are moot in view of the new ground(s) of rejection. The applicant is directed to the above rejection.

Regarding claim 9, Applicant's arguments have been fully considered but they are not persuasive. As indicated in the above rejection, applicant's Declaration is insufficient to overcome the rejection of the pending claims. Although the Stamos reference does not specifically teach the removable backend partition and the backplane support as separate structures, Stamos does teach an upper portion of 46 and a lower portion of 46 "fixed" together, such that the differences between the subject matter sought to be patented and the prior art are such that the subject as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Likewise, as indicated above, Stamos at least suggests "fixing a backplane to the backplane support" in col. 4, lines 1-16.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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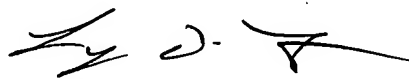
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 571-272-2042. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 7, 2006
aqe


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